

DEVELOPING EFFECTIVE METRICS FOR TRAINING AND EDUCATION

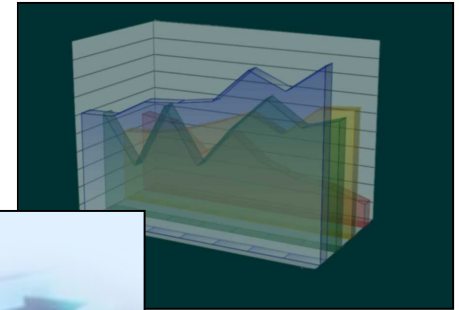


**Presented by
Mr. Jim Bouzios
NETC N81**

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BRIEFING OUTLINE

- **Training and Education Measures**
- **Key Measurement Areas**
 - **Strategic**
 - **Mission**
 - **Feedback**
 - **Special Interest / Emphasis**
- **Metrics Display Models**
- **Summary**



T&E MEASURES

Past

- **Focus Limited to Mission Related Quantitative Measures**
 - Capacity
 - Throughput
 - Graduation Rates
 - Attrition
 - Time-To-Train
 - Setback Rates



Future

- Address **Efficiency and Effectiveness** Measures
- **Key Measurement Areas**
 - **Strategic Objectives** - Progress Towards Achieving Vision, Mission and Objectives
 - **Mission Success** - Quantitative and Qualitative Measures of Program Success
 - **Feedback** - Internal and External Customer Satisfaction
 - **Special Interest/Emphasis** - Progress on High Visibility Issues

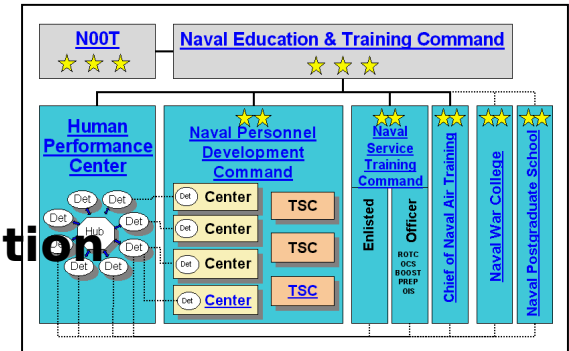
STRATEGIC MEASURES

Past

- Focus on Training Solutions Not Human Performance Solutions
- Measurement System Not Clearly Defined or Fleet Focused

Future

- Improve Combat Readiness
 - Measure the Readiness of Deploying Battle Groups
- Establish an Agile and Responsive Organization
 - Measure Organizational Responsiveness
- Institutionalize **Human Performance Systems Model (HPSM)**
 - Measure the Outcomes of HPSM Interventions
- Ensure Most Effective Allocation and Use of Resources
 - Measure the Economic Impact of Business Decisions
- Establish a Lifelong Learning Continuum
 - Measure Completion of Joint Task Analyses and Rating 5-Vector Models (5VM)



MISSION MEASURES

Past

- **Focus on Quantitative Measures**
 - Student Flow Management
 - Input Oriented vs. Output Oriented
- **Quantitative Metrics**
 - Plan vs. Actual Enrollment
 - Graduation Rates
 - Attrition/Non-Graduation Rates
 - Time-To-Train
 - Average Days Under Instruction, Awaiting Instruction or Transfer



Future

- **RIT Moving Focus Toward Qualitative Measures**
 - HPSM and 5VM Provide Framework for Evaluating Impact of T&E
- **Qualitative Metrics**
 - Performance Sampling
 - Learner Reaction
 - Knowledge Transfer Skills
 - Job Application
 - Frequency and Use of Learned
 - Percentage of NMETLs Linked to

FEEDBACK MEASURES

Past

- **Traditional Focus**
 - Navy Training Requirements Review Process
 - Instructor and Student Critiques
- **Fleet Identification of T&E Issues**
 - Respond to Exceptions and/or Problems Identified by Fleet



Future

- **RIT Moving Focus Toward Performance-Based Measures**
 - Systematic and Timely
 - Continuous Communication With Fleet
 - HPSM Facilitates Measurable Solutions that Meet Fleet Needs
- **Performance-Based Metrics**
 - Linked to Mission and Individual Tasks
 - Tied to Individual Sailor Performance Through the 5VM
 - Fleet Quantifies Scope and Level of Effort Needed to Achieve Mission Objectives

SPECIAL INTEREST / EMPHASIS MEASURES

Past

- **Narrow Context - Limited ROI Model**
- **Quantitative Measures**
 - Course Length Reductions
 - Individuals Account Reductions
 - Focus on Technology, Classroom Reengineering and Navy e-Learning

Future

- **Broad Context - RIT Shifting Focus to **Balanced Metrics Model****
- **Stretch Goals**
 - Focus Organization's Attention and Effort
 - Ensure Projected Savings Realized
 - Measure Progress Toward Achieving RIT Goals
 - Example: **Skill Training**
- **CNO Guidance for 2003 - T&E Targets**



METRICS DISPLAY MODELS

- **Focus - Metrics Not Display Models**

- **Several Models**

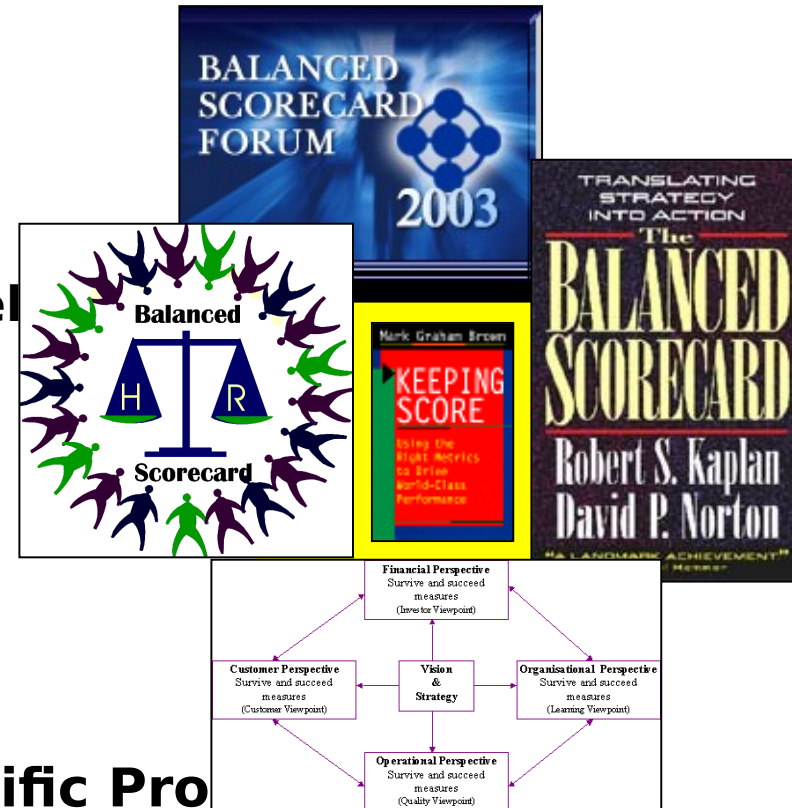
- **Balanced Scorecard**
- **Baldrige Award Model**
- **Florida Sterling Council Model**

- **Options**

- **Purchase Software Package**
 - **Significant Expense**
 - **“Per-User” Basis**
- **Develop Model Internally**

- **NETC Not Committed to Specific Pro**

- **Several Software Packages Being Evaluated**
- **Considering I nternally Produced Model**



SUMMARY

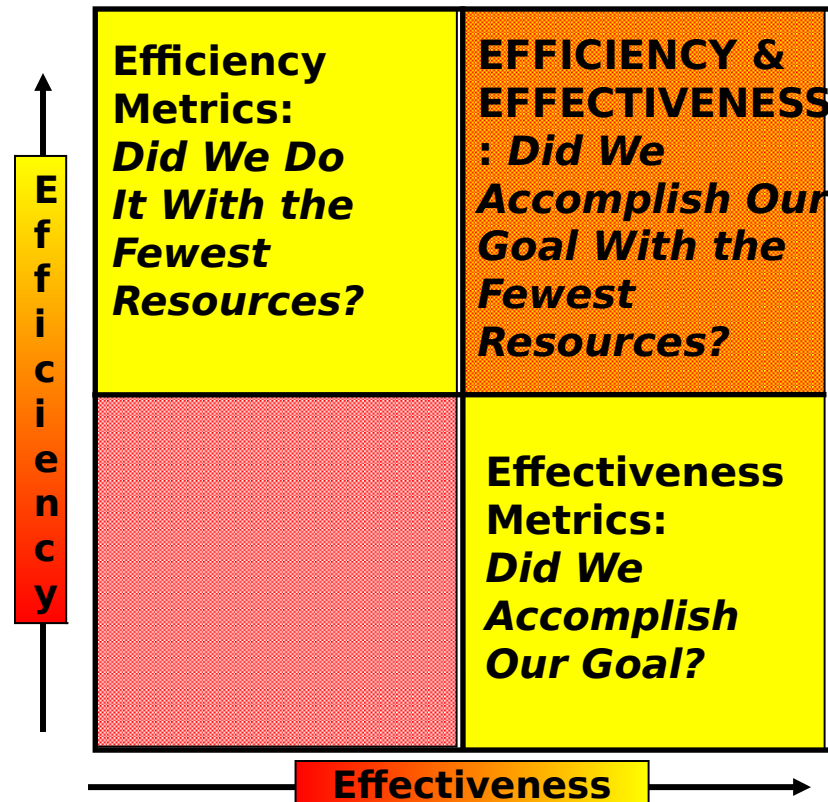
- Navy T&E is “Data Rich” and “Information Poor”
- Historical Focus - Quantitative Measures
- Future Focus - Both Quantitative and Qualitative Measures
- Navy T&E Measurements Are a Work In Progress



EFFICIENCY AND EFFECTIVENESS

Efficiency

**Have We
Eliminated
Redundant
and
Irrelevant
Instruction?**



Effectiveness

**Are We Tying
the
Curriculum
to Stated
Requirements?**



HUMAN PERFORMANCE MODEL

1
1

I. Define Requirements

Establish
Performance
Standards and
Requirements

II. Define Solutions

Design Human
Performance
Solutions

Implement and Test
Intervention;
Evaluate
"Product of Plan"

IV. Execute and Measure

III. Develop Components

Develop, Build, and
Integrate Tools



QUADRANT IV

EXECUTE AND MEASURE

1
2

- **Execute Selected Solution(s)**
- **Conduct Reviews of Approved Solution(s)**
- **Collect Performance and Results Data**
- **Evaluate and Measure Mission Effectiveness**
- **Assess ROI and Remediation Effectiveness**
- **Recommend Improvements**

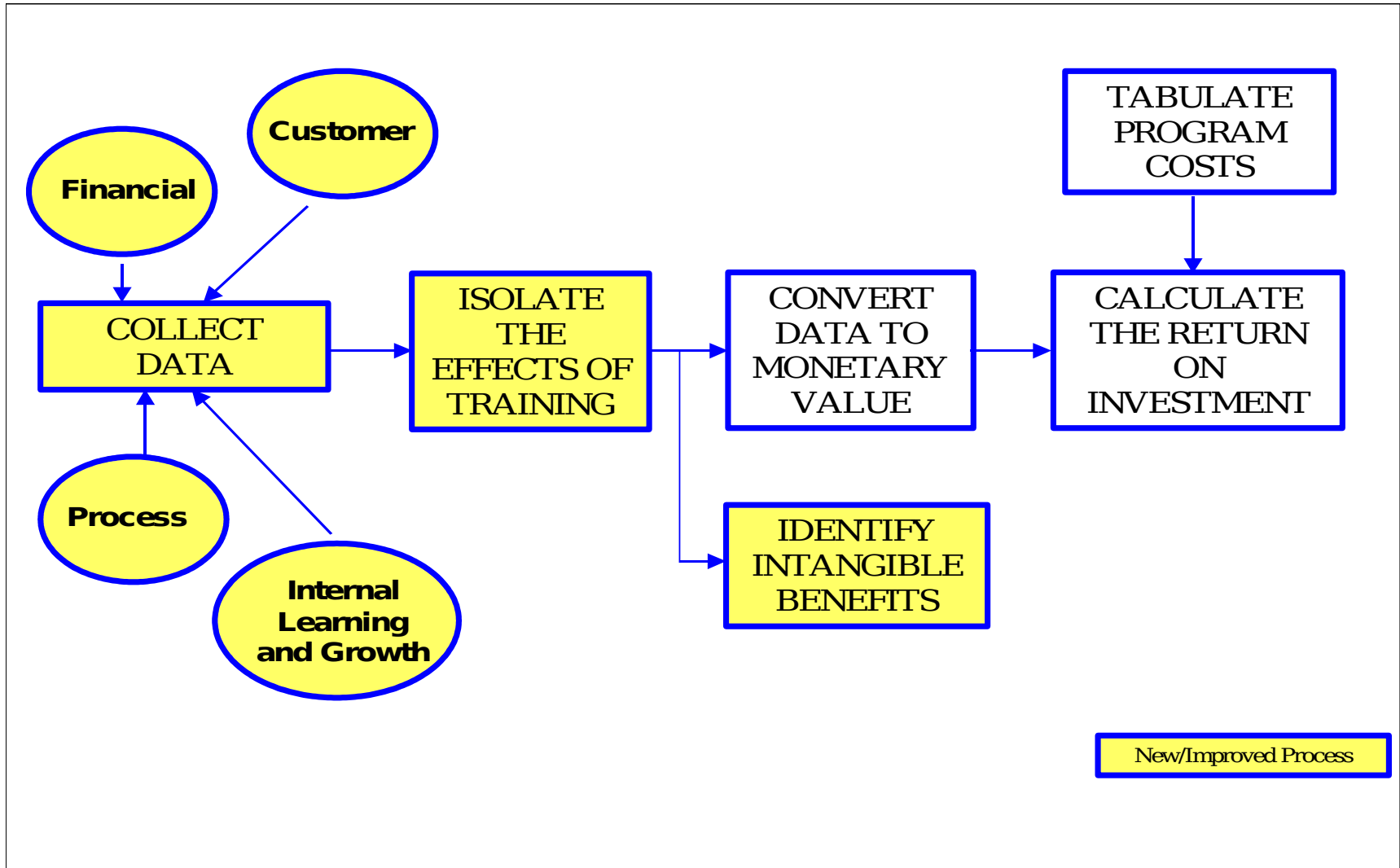


BALANCED METRICS

Financial	Customer
<ul style="list-style-type: none">• Curriculum Development Cost• IA Savings• Infrastructure Cost (Manpower, Facilities, IT, etc.)• Acquisition and Contract Cost• Obligation and Expenditure Rates	<ul style="list-style-type: none">• Skill Mix• NEC Matches• Human Performance• Mishaps/Casualty Incidents• Time to Qualify• System Operational Availability
Process	Internal Learning & Growth
<ul style="list-style-type: none">• Total Time- to-Train (AI, AT, UI, II)• Enrolls and Graduates• Curriculum Development Time• Street-to-Fleet Time• Attrition (Academic, Non-Academic)	<ul style="list-style-type: none">• Communities of Practice• SVM Rating Continuums• Job Certifications• Retention• Education Attainment



REVISED ROI MODEL



RIT SAVINGS

CATEGORY	STATUS	FY04-09 SAVINGS	
Student IA	<ul style="list-style-type: none"> • Savings \$703.0M • Cost Avoidance \$2.0B • Savings Taken \$382.0M 	51,557 Man-Years	\$2,661.4M
Military Staff	<ul style="list-style-type: none"> • FY04 Offset of 330 Billets to Meet AT/FP Base Security Requirement • FY05-09 Savings Not Taken 	1,355 Enlisted 221 Officer	\$393.3M
Civilian Staff	• CIVPERS Savings Taken Across FYDP	278 CIVPERS	\$85.8M
TAD	• Cost Avoidance to BUPERS and Fleet	\$230.0M	
PC Simulation	• Savings Will Offset TTE Acquisition and Maintenance Costs	\$59.0M	

Projected Savings and Cost Avoidances on Track **Assuming Full Funding for RIT Investment**



FY04-09 SAVINGS

DOLLAR SAVINGS							
	FY04	FY05	FY06	FY07	FY08	FY09	Total
Student IA	\$221.4 M	\$293.1 M	\$375.2 M	\$466.9 M	\$581.5 M	\$723.3 M	\$2,661.4 M
Military Staff	\$18.2 M	\$37.3 M	\$57.3 M	\$77.9 M	\$99.5 M	\$103.1 M	\$393.3M
Civilian Staff	\$3.9M	\$8.1M	\$12.5 M	\$17.0 M	\$21.8 M	\$22.5 M	\$85.8M
TAD	\$22.8 M	\$29.7 M	\$34.2 M	\$40.3 M	\$43.0 M	\$60.0 M	\$230.0M
MAN-YEAR SAVINGS							
	FY04	FY05	FY06	FY07	FY08	FY09	Total
Student IA	4,754	6,027	7,486	9,031	10,979	13,280	51,557
Military Staff	330	324	317	305	300	0	1,576
Civilian Staff	57	55	56	56	54	0	278



SKILL TRAINING

IA Reduction Goals

1
7

Learning Center	FY02 IA Man-Years Expended	FY03 Goal	FY03 1 st Qtr Actual	
Naval Aviation Technical Training	6,323	5,892	1,532	
Surface Combat Systems	3,434	3,200	719	
Naval Engineering	2,775	2,586	558	
Submarine Learning	1,681	1,566	415	
Cryptology	1,538	1,433	387	
Service Support	1,395	1,300	287	
SeaBees and Facilities Engineering	999	931	236	
Information Technology	809	754	160	
Surface Operations	627	584	148	
Personal Development	495	461	129	
EOD and Diving	476	444	206	
Naval Leadership	362	337	72	
Naval Intelligence	244	227	57	
Total	21,157	19,715	4,906	

Will Make Goal

May Not Make Goal

Will Not Make Goal

